

**THIS SPECIAL PROVISION IS USED TO SPECIFY AN AESTHETIC TREATMENT FOR STRUCTURES AND APPURTENANCES. ENTER THE PROJECT SPECIFIC COLOR IN MATERIALS SECTION. DO NOT CHANGE APPROVAL CODE OR DATE.**

MICHIGAN  
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION  
FOR  
**CONCRETE SURFACE COATINGS**

C&T:DEB

1 of 2

REVISED:06-10-04  
C&T:APPR:JFS:JAR:02-10-04

**a. Description.** Furnish and apply an acrylic based concrete surface coating to concrete structures, including but not limited to barriers, fascias, cheekwalls, piers and substructure locations as specified on the plans. Conform to the 2003 Standard Specifications for Construction except as modified herein.

**b. Materials.** Select the acrylic based concrete surface coating from the list of products listed below. On any single structure, use the same product for all areas to be coated with a specified color. Do not mix colors or products from more than one source.

For this project, furnish and apply a smooth textured, **(NOTE TO DESIGNER: INSERT PROJECT SPECIFIC COLOR HERE)** or other colors as approved by the Engineer

Submit color samples to the Engineer for review and approval. If required by the Engineer, complete a test section to demonstrate the final color prior to application of the coating to the structure.

<u>Company</u>	<u>Product</u>
Sika Corporation	Elastocolor and Sikagard 550W Elastic
Polycarb, Inc.	Mark 87 with Mark 87 Primer
ThoRoc	Weatherguard System with Primer
Proko Industries, Inc.	FlexCrete 500
Sonneborn	Super Color Coat
Tamms Industries	Tammolastic
Axson Akemi	C.C.60.0
Carboline Company	Carbocrylic 600
LanGuard	HC-301 with Primer
ICI Dulux Paints	Decra-Flex 2260-XXXX
Strongwall Industries, Inc.	Strongcote SC-111
Thoro	Thorocoat and Thorolastic
ChemMasters	Colorcoat
ChemMasters	Colorlastic

**c. Construction.**

- 1. Surface Preparation** – All concrete to be coated must be at least 28 days old. Prepare the surface, including removing fins and projections and filling surface voids and cracks (if required), according to manufacturer's recommendations, except as modified by this specification.

Surface to be coated must be dry and free from all contamination including, but not limited to, dirt, form release agents, oil, grease, laitance, loose material and curing compounds. Clean surface by water cleaning, steam cleaning, or abrasive blasting (followed by oil-free compressed air cleaning) or by combination to achieve an acceptable cleaned surface. Water or steam cleaning primarily removes water soluble contaminants. Aged concrete with contaminants such as hardened curing compound may require light abrasive blasting to completely remove the curing compound. Since many curing compounds contain wax, even well adhered residue shall be removed prior to coating to ensure a good bond between the surface coating and the concrete.

When water or steam cleaning is used, the power washer must deliver 3000 - 4500 psi and utilize a 15° or smaller nozzle tip held perpendicular to the surface being cleaned. When using light abrasive blasting to remove contaminants on new construction, be careful not to remove excessive concrete material.

2. **Visual Inspection** – Check surface cleanliness by lightly rubbing with a dark cloth or by pressing translucent adhesive tape onto the concrete surface in the presence of the Engineer. An acceptable level of residual dust can be agreed upon by the Engineer and the contractor. Perform a water drop test in the presence of the Engineer prior to coating the concrete surface to detect for the presence of any hydrophobic contaminants. Hydrophobic contaminants include materials such as form release agents, curing compounds, oil, grease, wax, and resins. If contaminants are detected, as evidenced by a lack of rapid absorption of the water drop into the concrete, remove the contaminants and perform the tests again until no contaminants are detected.
3. **Application** - Apply a primer coat, if recommended by the manufacturer, followed by two coats of the acrylic based concrete surface coating. Apply each coat to provide the minimum wet film thickness as recommended by the manufacturer.

**d. Measurement and Payment.**

<b>Contract Item (Pay Item)</b>	<b>Pay Unit</b>
Conc Surface Coating (Structure No.).....	Lump Sum

Payment for **Conc Surface Coating (Structure No.)** includes all labor, equipment, and materials to prepare the substrate concrete surface, conduct the visual inspection and apply the primer (if required) and two top coats of surface coating. No additional payment will be made for the test section.